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**THINKING SKILLS**

**9694/43**

Paper 4 Applied Reasoning

**October/November 2019**

MARK SCHEME

Maximum Mark: 50

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**Published**

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, which would have considered the acceptability of alternative answers.

Mark schemes should be read in conjunction with the question paper and the Principal Examiner Report for Teachers.

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This document consists of **12** printed pages.

**Generic Marking Principles**

These general marking principles must be applied by all examiners when marking candidate answers. They should be applied alongside the specific content of the mark scheme or generic level descriptors for a question. Each question paper and mark scheme will also comply with these marking principles.

**GENERIC MARKING PRINCIPLE 1:**

Marks must be awarded in line with:

- the specific content of the mark scheme or the generic level descriptors for the question
- the specific skills defined in the mark scheme or in the generic level descriptors for the question
- the standard of response required by a candidate as exemplified by the standardisation scripts.

**GENERIC MARKING PRINCIPLE 2:**

Marks awarded are always **whole marks** (not half marks, or other fractions).

**GENERIC MARKING PRINCIPLE 3:**

Marks must be awarded **positively**:

- marks are awarded for correct/valid answers, as defined in the mark scheme. However, credit is given for valid answers which go beyond the scope of the syllabus and mark scheme, referring to your Team Leader as appropriate
- marks are awarded when candidates clearly demonstrate what they know and can do
- marks are not deducted for errors
- marks are not deducted for omissions
- answers should only be judged on the quality of spelling, punctuation and grammar when these features are specifically assessed by the question as indicated by the mark scheme. The meaning, however, should be unambiguous.

**GENERIC MARKING PRINCIPLE 4:**

Rules must be applied consistently e.g. in situations where candidates have not followed instructions or in the application of generic level descriptors.

**PUBLISHED****GENERIC MARKING PRINCIPLE 5:**

Marks should be awarded using the full range of marks defined in the mark scheme for the question (however; the use of the full mark range may be limited according to the quality of the candidate responses seen).

**GENERIC MARKING PRINCIPLE 6:**

Marks awarded are based solely on the requirements as defined in the mark scheme. Marks should not be awarded with grade thresholds or grade descriptors in mind.

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Question	Answer	Marks
1(a)	<p><i>1 mark for any of the following:</i></p> <ul style="list-style-type: none"> <li>• the first example given comes from 2015</li> <li>• it is possible that 'famous people' is conflated with 'people the author knows of'</li> <li>• the frequency of reports could result from media vested interest in its being discussed</li> <li>• the claim about the author's memory could reflect the brevity/bias/unreliability of memory rather than any genuine increase in numbers</li> <li>• there could be a steady increase each year, in which case the comparison with the average could be misleading</li> <li>• comparison with an average means little without some indication of the variation about the mean ('42' could be within a standard deviation of the mean)</li> <li>• the increased number of used obituaries could be explained by a higher number of obituaries having been prepared</li> <li>• it is possible that the average for 2012 to 2015 is lower than the long-term average</li> </ul>	<b>3</b>
1(b)	<p><i>Up to 2 marks for a developed explanation along the lines of the following:</i></p> <ul style="list-style-type: none"> <li>• given the author's age it is possible that he or she is familiar with a large number of celebrities who are reaching the age at which death is more likely</li> <li>• the fact that some famous celebrities died early in the year could have alerted the author to be more aware of celebrity deaths for the rest of the year/could have motivated the news media to give celebrity deaths a higher profile in news reports</li> <li>• more people are considered to be celebrities than previously, so it is unremarkable that the number of deaths is also higher.</li> <li>• it may have become a more common practice for the media to report the deaths of well-known people than used to be the case, which gives an illusion of an increase in notable deaths.</li> </ul>	<b>2</b>

Question	Answer	Marks
2	<p><i>1 mark for each element (maximum 5 if MC not identified).</i></p> <p><b>CA</b> Being attached to the internet all day is unnatural.  <b>IC</b> However,) this appeal to nature is deeply flawed.  <b>IC</b> The rise of social media is not unnatural.</p> <p><b>IC</b> (Undoubtedly,) social networking sites increase the spread of information.</p> <p><b>IC</b> (Interestingly,) social media is also a force for gender equality in the workplace.  <b>IC</b> (With the help of social networks) women will soon be able to take over the majority of senior business roles from men.</p> <p><b>IC</b> Social networking increases the speed of political change.</p> <p><b>MC</b> Social media is a good thing;  <b>IC</b> it [social media] is fun.</p>	<b>6</b>

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Question	Answer	Marks
3	<p>2 marks for a developed version of any of the following points. 1 mark for a weak or incomplete version of any of the following points.</p> <p><i>Paragraph 2</i></p> <ul style="list-style-type: none"> <li>• Appeal to nature/Assumption – that the natural state is desirable.</li> <li>• Straw man – the author focusses on one rather minor way in which social media could be 'unnatural' while ignoring others that might be more difficult to argue against.</li> </ul> <p><i>Paragraph 3</i></p> <ul style="list-style-type: none"> <li>• Assumption – that in the past young people received less information or received information less quickly.</li> <li>• Assumption – that if you get information more quickly then you get more of it.</li> <li>• Assumption – that increased spread of information results in people being well-informed/conflation of 'obtaining information' with 'being well informed'.</li> </ul> <p><i>Paragraph 4</i></p> <ul style="list-style-type: none"> <li>• Confusion of social media posts with social network users.</li> <li>• 'Some estimates' makes it look like there are other estimates, and so it appears that these have been cherry-picked: the other estimates may lead to the opposite conclusion.</li> <li>• Assumption – that not being in paid employment makes it more likely that you will post on social media.</li> <li>• Relevance – the statistic pertaining to women who are not in paid employment does not support a role for social media in increasing the number of women senior business executives.</li> <li>• Assumption – that social networks can provide the same sort of career benefits as the previously mentioned 'social clubs and other organisations'.</li> <li>• Inconsistency between women taking over the majority of senior business roles and the aim of gender equality.</li> </ul> <p><i>Paragraph 5</i></p> <ul style="list-style-type: none"> <li>• Assumption – in order for the IC to support the MC one must assume that rapid political change is a good thing.</li> </ul> <p><i>Paragraph 6</i></p> <ul style="list-style-type: none"> <li>• Assumption – that 'fun' is 'good'.</li> </ul>	9

Question	Answer	Marks
4	<p><b>‘Online social networking is good for society.’</b></p> <p><i>Support (805 words)</i></p> <p>Online social networking or the use of social media (throughout the documents, and here, they are used to mean more or less the same thing) benefits world economies. Both Docs 1 and 4 claim that social networking helps business. Although Doc 1 is a little self-contradictory about the direct economic contribution from social media companies themselves, the economic activity of other companies that has been facilitated by social media is undoubtedly enormous. This should be seen as a clear benefit. Business fuels individual prosperity, which most people would regard as benefitting society. Similar increases in business communication presumably arose with the introduction of the railways, or the telephone and people look back on such innovations as having been good for society.</p> <p>Doc 2’s point about time-wasting at work is a legitimate concern and there is some evidence in Doc 4 that this distraction can be considerable. However, the stance of Doc 2 is clearly against social media so the study about time wasting might have been cherry-picked to support a point. As it is, we have no comparable statistic about profits generated as a result of social networking so the significance of ‘billions of dollars’ is unknown. However, safeguards could be introduced by companies, and Doc 4 suggests that this is already happening and these safeguards could become more sophisticated in the future. Furthermore, Doc 2 admits distractions from sources other than social media and so the negative influence of social media on business efficiency might not be as large as suggested. It therefore seems likely that the net effect of social media on business efficiency is positive.</p> <p>Docs 1 and 4 state that social networking has an increasing influence on politics. Doc 5 suggests some role but there is no information about an increase and, without any comparable figures for other avenues of political activity, the relevance of the statistics is questionable. Anyway, with politics, whether you regard the influence of social media as positive or negative depends entirely on your opinion of the outcome of any political activity. Doc 3 alludes to the sinister nature of one social network executive gaining influence over global decision-making. However, the report is not a description of what will happen, merely the musings of a single individual who might be wrong and who is only one of many influential people in the world. One could argue that others, such as Rupert Murdoch, have had more influence on global decision-making before the arrival of social media. So, the political effects of social media on society are unclear.</p> <p>Online social networking has increased the speed of information transfer. While it is true that some of this news is ‘fake’, it was ever thus. Fake news has always been there and, without evidence to the contrary, we should not assume it is present as a higher proportion of ‘real news’ than it ever was. If knowledge is better than ignorance (as Doc 1 states and I think Barack Obama recently said) then even if a proportion of that information is false, more information must, on balance be for the good of society.</p>	30

Question	Answer	Marks
4	<p>The 'fun' aspect of social media is often overlooked. Humans aspire to lives that have opportunities for fun and are different from those of their parents. Social networking sites facilitate both fun and progress, as cited in Docs 1 and 4. This is no mere appeal to novelty, humans do genuinely seem to enjoy the act of 'progress' and clearly have fun on social networking sites. To discount this as a significant reason in its favour would be to discount the value of all other 'fun but not-necessarily-productive' activities, like music, storytelling and sport.</p> <p>Most of the other arguments against online social networking, such as those put forward in Doc 2, smack of appeals to nature or tradition. Doc 1's point about the naturalness of continuous social media contact might be rather silly but it does illustrate the weakness of such appeals. Much of human communication since the invention of cave paintings could be argued to be unnatural. The negatives of social networking that are cited from time to time are all things that existed before the internet in a different form. Before cyber-bullying, cited in Doc 4, there was 'real-life' bullying. People who are boring on social networking sites, cited in Doc 2, are likely to be boring in real life also. News on social media might be putting newspapers out of business, as mentioned in Doc 1, but newspapers probably put town criers and travelling minstrels out of business.</p> <p>Online social networking is almost certainly good for the world economy. Its long-term effect on politics is, at worst, ambiguous and it probably makes us better informed. It is undoubtedly a real example of progress that many people enjoy greatly so online social networking is good for society.</p> <p><i>Challenge (833 words)</i></p> <p>There are obviously some benefits to online social networking and the use of social media (throughout the documents, and here, they are used to mean more or less the same thing) but the negative effects on society are many.</p> <p>The author of Doc 1 claims that social networking is good for the global economy but his or her credibility on the matter is clearly undermined by the biased stance of the document. Doc 4 is more balanced and, while it makes a similar claim, it also suggests a potential economic negative. Social media as a distraction from work is a legitimate concern. Doc 2's point about time-wasting is supported by evidence in Doc 4 that this distraction can be considerable. The stance of Doc 2 is clearly against social media but the study about time wasting seems plausible and the 'billions' figure, even if exaggerated, seems large enough for us legitimately to worry. The fact that Doc 2 appears to admit distractions from sources other than social media does not undermine the point because links to other sites appear on social media and it is very likely that the author's visit to the game began on a social networking page. Moreover, Doc 1 is self-contradictory about the direct economic contribution from social media companies themselves, admitting that the rise of social media companies might have been at the expense of traditional print and broadcast media industries. It is therefore possible that the net effect of social media on the economic aspects of society is negative.</p>	

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Question	Answer	Marks
4	<p>With regard to politics, whether you regard the influence of social networking as positive or negative depends entirely on your opinion of any political activity. Docs 1 and 4 state that social networking has an increasing influence on politics. Doc 1 cites what it regards as the positive political influence of social networking but people who were opposed to Donald Trump or 'Brexit' would not necessarily regard these examples as benefits to society, as the more balanced Doc 4 admits. Doc 3 mentions a company with as much power as Facebook advocating further power for that company in global decision-making. This is a huge concern. We have no information about the actual number of Facebook users but Doc 3 states it is the biggest social network and Doc 5, from a 'respected' polling company, suggests that around half of adults use social media for political activities so my guess is that its potential sphere of influence is big. The potential to have so much influence resting with one organisation, that is not democratically accountable, is not good. Mark Zuckerberg might be intelligent and well-intentioned, but others might succeed him who are not. We worry enough about traditional media figures, such as Rupert Murdoch, having too much influence; this could worsen. So, politics does not support a conclusion that the net influence of online social networking on society is positive.</p> <p>Undoubtedly, social networking has increased the speed of information transfer. One could argue that, if knowledge is better than ignorance (as Doc 1 states and I think Barack Obama recently said) then more information must be for the good. However, this logic ignores the issue of fake news. Fake news has always existed but in the past it was filtered by print and broadcast news organisations who valued their professional integrity and reputation. Such constraints do not seem to exist on social media sites and hence the proportion of information that is fake has increased. Thus, we can no longer say that more information is a good thing.</p> <p>Docs 1 and 4 argue that being a fun activity is significant benefit of social networking. However, societies' concept of what constitutes 'fun' can change significantly. The ancient Romans thought gladiatorial combat was acceptable entertainment. There are many examples of animal cruelty that were once considered 'fun'. Being fun carries little weight in a reasoned discussion of benefits and risks.</p> <p>It is true that most people who downplay the benefits of social media are older, perhaps because they use it less, as Doc 5 would suggest. However, it might be because such people have seen other popular innovations come and go and have had time to consider the issues more deeply. It is not an appeal to tradition (or nature, as suggested in Doc 1) simply because the person who makes it is old. Doc 1's point about the naturalness of continuous social media contact is ridiculous special pleading on behalf of the mobile social media industry.</p>	

Question	Answer	Marks
4	<p>We should worry about the spread of social networking for other reasons listed in Docs 4 and 2, e.g. cyber-bullying or the availability of personal details on the internet and the opportunity this provides for identity theft or worse. None of the documents provides a strong counter to these points. It is true that such things existed before the advent of social media but it seems likely that the scale and extent were not as high.</p> <p>Online social networking is not good for society.</p>	

Level	Structure	Max 8	Quality of argument	Max 8	Use of documents	Max 8	Treatment of counter positions	Max 6
4	<p>Precise conclusion and accomplished argument structure with consistent use of intermediate conclusions. Likely to include at least two of the following:</p> <ul style="list-style-type: none"> <li>• strands of reasoning</li> <li>• suppositional reasoning</li> <li>• analogy</li> <li>• evidence</li> <li>• examples</li> </ul> <p>Argument is structured so the thought process is made clear. Uses vocabulary of reasoning appropriately and effectively to support argument.</p>	7–8	<p>Cogent and convincing reasoning which answers the question which was asked. Subtle thinking about the issue. Use of relevant own ideas and ideas from documents. Very few significant gaps or flaws.</p>	7–8	<p>Perceptive, relevant and accurate use of documents to support reasoning. References 3+ documents. Sustained and confident evaluation of documents to support reasoning. (Two or more valid <b>evaluative</b> references to documents). Able to combine information from two or more documents and draw a precise inference.</p>	7–8	<p>Consideration of key counter arguments and effective response to these. Use of own ideas in response to counter arguments not mentioned in the documents. Use of valid critical tools to respond to counter arguments. Effective use of appropriate terminology.</p>	5–6
3	<p>Clear conclusion that is more than 'I agree'. Clear argument structure, which may be simple and precise or attempt complexity with some success. Appropriate use of intermediate conclusions. Use of other argument elements to support reasoning. Generally makes thinking clear. Appropriate use of vocabulary of reasoning.</p>	5–6	<p>Effective and persuasive reasoning which answers the question which was asked. (Although there may be some irrelevance or reliance on dubious assumptions.) Use of own ideas and ideas from documents. Few significant gaps or flaws.</p>	5–6	<p>Relevant and accurate use of documents which supports reasoning. References 3+ documents. Some evaluation <b>and</b> comparison of documents to support reasoning. Inference drawn from at least 1 document.</p>	5–6	<p>Consideration of key counter arguments and effective response to these. Response uses own ideas or is developed from documents. Some use of appropriate terminology.</p>	3–4

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Level	Structure	Max 8	Quality of argument	Max 8	Use of documents	Max 8	Treatment of counter positions	Max 6
2	Conclusion stated but may be 'I agree'. Sufficient clarity for meaning to be clear throughout. Structure may be easy to follow but brief or a longer argument which has a less clear structure. Uses reasons. Some appropriate use of vocabulary of reasoning.	3–4	A reasoned stance which attempts to answer the question which was asked. Some support for the conclusion. (Although there may be considerable irrelevance or reliance on dubious assumptions.) Some thinking/own ideas about the issue. Use of rhetorical questions and emotive language. Some significant gaps or flaws.	3–4	Some relevant use of documents to support reasoning, but some documents used indiscriminately. Some comparison of documents <b>or</b> some critical evaluation of documents <b>or</b> reasoned inference drawn from document.	3–4	Inclusion of counter argument or counter assertion. Response is direct but weak or taken entirely from documents.	2
1	Attempt to construct an argument. Unclear conclusion, multiple conclusions or no conclusion. Disjointed, incoherent reasoning. Use of examples in place of reasoning. Possibly a discourse or a rant. Reasons presented with no logical connection. Documents considered sequentially. Substantial irrelevant material.	1–2	Attempt to answer the general thrust of the question. Attempt to support their view. Excessive use of rhetorical questions and emotive language. Ideas which are contradictory.	1–2	Some, perhaps implicit, use of documents. No attempt at critical evaluation. No comparison of documents.	1–2	Inclusion of counter argument or counter assertion. Response is direct but ineffective.	1